



DREDGED MATERIAL RESEARCH PROGRAM



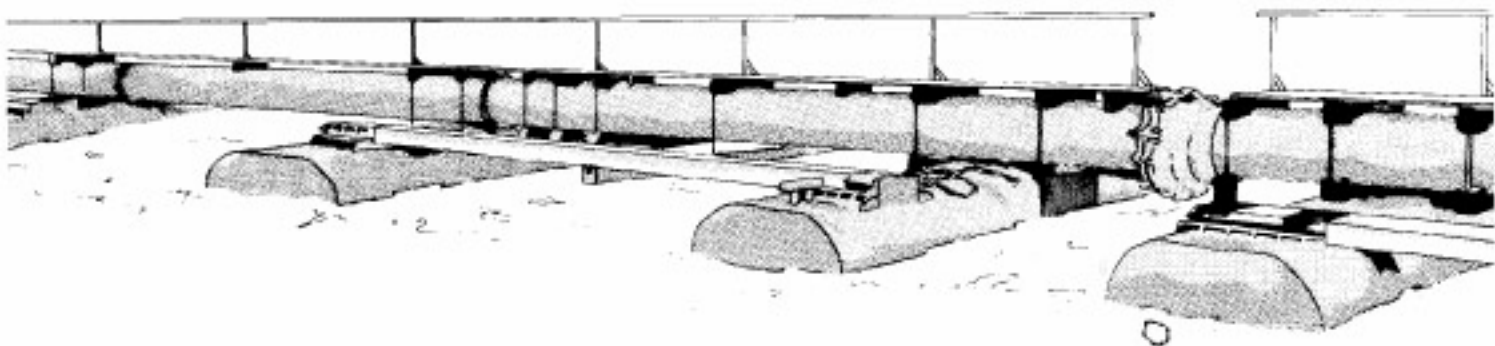
CONTRACT REPORT D-74-2

REGIONAL LANDFILL AND CONSTRUCTION MATERIAL NEEDS IN TERMS OF DREDGED MATERIAL CHARACTERISTICS AND AVAILABILITY

VOLUME I: MAIN TEXT

by

R. Reikenis, V. Elias, E. F. Drabkowski



May 1974

Sponsored by Office of Dredged Material Research

Conducted for U. S. Army Engineer Waterways Experiment Station, Vicksburg, Mississippi

Under Contract No. DACW 39-73-C-0141

By Green Associates, Incorporated, Towson, Maryland

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DEPARTMENT OF THE ARMY
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IN REPLY REFER TO: WESVS

31 May 1974

SUBJECT: Transmittal of Contract Report D-74-2

TO: All Report Recipients

1. The contract report transmitted herewith represents the results of one of four research efforts (work units) initiated to date as part of Task 5C (Disposal Area Reuse Research) of the Corps of Engineers' Dredged Material Research Program (DMRP). Task 5C is included under the Land Disposal and Equipment Project of the DMRP, which is concerned with both the environmental effects of land disposal operations and facilities as well as new concepts for land disposal, particularly those involving consideration of dredged material as a resource rather than simply a waste product.
2. A particularly attractive concept for mitigating the land requirements for disposal sites is to increase the life expectancy of sites through the periodic removal of dredged material for use elsewhere. Optimally, sites could be used indefinitely or be truly permanent disposal facilities; however, continuing needs for the dredged material must be identified. Moreover, procedures must be available for processing and/or rehandling the materials, and mechanisms must be present for marketing the materials under known constraints.
3. The investigation reported herein addressed itself to identifying regional variations in and potential for two promising uses of dredged material taken from disposal sites or directly from dredging projects, i.e. landfill and construction materials. The contracted effort was accomplished during a 7-month period and was nationwide in scale, involving hundreds of contacts, in person or by correspondence, with persons with varied interests and functions in organizations from Federal to local in scale.
4. Regional needs for landfill for a variety of functions, including urban, environmental, economic, and resource land uses, were generally found to be in excess of projected volumes of dredged material to be available from navigation improvement projects. While there are problems

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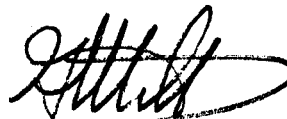
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to be overcome, particularly in regard to material placement, control, and dewatering to facilitate consolidation, there is good probability for widespread use of dredged material for landfill if the projects are planned and executed on a fixed time scale with well-integrated Government and private sector planning.

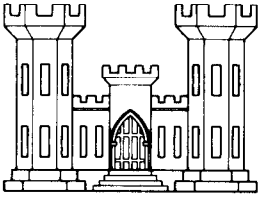
5. Construction material deficiencies currently exist in parts of the country and additional ones are expected to develop; however, the majority of available dredged material is unsuitable for use in quantities needed by suppliers for competitive operations.

6. The study concludes that Corps districts need to cooperate to the fullest extent possible with local planning agencies in selecting disposal sites with a view of their being compatible with and suitable for incorporation into regional and local land use plans. It also concludes that one practical scheme for making dredged material more readily available is to stockpile it at strategic locations. However, for a concept of this type to be viable, it must incorporate facilities for drainage, dewatering, and separation. Research efforts under the DMRP already have been initiated to develop such concepts which could make stockpiling a reasonable alternative in certain situations.

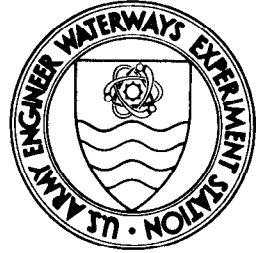


G. H. HILT

Colonel, Corps of Engineers
Director



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ARMY-MRC VICKSBURG, MISS.

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